

In the Claims

1. (Currently Amended) A method of initiating forward error correction in an ethernet passive optical network including at least one optical network unit, comprising the steps of: by an optical line terminal (OLT):

(a) upon receiving forward error corrected data from the at least one optical network unit, responding thereafter with forward error corrected data; and

(b) upon receiving data not forward error corrected from the at least one optical network unit, responding thereafter with data not forward error corrected.

2. (Currently Amended) A method of initiating forward error correction in an ethernet passive optical network including an optical line terminal, comprising the steps of: by an optical network unit:

(a) upon receiving forward error corrected data from the optical line terminal, responding thereafter with forward error corrected data; and

(b) upon receiving data not forward error corrected from the optical line terminal, responding thereafter with data not forward error corrected.

3. (Currently Amended) A method of managing forward error correction in an ethernet passive optical network including at least one optical network unit, comprising the steps of: by an optical line terminal (OLT):

(a) monitoring communications quality from the at least one optical network unit, thereby determining a figure of merit of said communications;

(b) upon finding said figure of merit to be insufficient, transmitting thereafter forward error corrected data to the at least one optical network unit; and

(c) upon finding said figure of merit to be sufficient, transmitting thereafter data not forward error corrected data to the at least one optical network unit.

4. (Original) The method, according to claim 3, wherein said figure of merit is selected from the group consisting of:

- (i) bit error rate,
- (ii) parity violation rate,
- (iii) 8B/ 0B coding violation rate; and
- (iv) frame error rate.

5. (Currently Amended) A method of managing forward error correction in an ethernet passive optical network including an optical line terminal, comprising the steps of: : by an optical network unit:

(a) monitoring communications quality from the optical line terminal, thereby determining a figure of merit of said communications;

(b) upon finding said figure of merit to be insufficient, transmitting thereafter forward error corrected data to the optical line terminal; and

(c) upon finding said figure of merit to be sufficient, transmitting thereafter data not forward error corrected to the optical line terminal.

6. (Original) The method, according to claim 5, wherein said figure of merit is selected from the group consisting of:

(i) bit error rate,

(ii) parity violation rate,

(iii) SB/I OB coding violation rate, and

(iv) frame error rate.

7. (New) The method of claim 1 wherein the step of responding thereafter with forward error corrected data includes changing a transmission protocol and state to send forward error corrected protected frames to the optical network unit; and wherein the step of responding thereafter with data not forward error corrected includes changing a transmission protocol and state to send data not forward error corrected protected frames to the optical network unit

8. (New) The method of claim 2, wherein the step of responding thereafter with forward error corrected data includes changing a transmission protocol and state to send forward error corrected protected frames to the optical line terminal and wherein the step of responding thereafter with data not forward error corrected includes changing a transmission protocol and state to send data not forward error corrected protected frames to the optical line terminal.